

also results from MeOH-free dry Me₂CO containing 1% by weight of HCl. β-Me mannopyranoside and Me₂CO-HCl (1%) give mannose 2,3,5,6-diacetone; with Me₂CO-CuSO₄ 6.5 g. of the sugar gives 4.4 g. of β-Me mannopyranoside 2,3,4,6-diacetone, b_{0.03} 105°, n_{D15} 1.4688, m. 76-7°, [α]₅₇₈₀₂₀ -124° (MeOH, c 1), and 1.4 g. of the slightly impure 2,3-acetone derivative, b_{0.03} 145° [α]₅₇₈₀₂₀, -80° (MeOH, c 1.4), -72° (H₂O c 1.4). The diacetone derivative is completely hydrolyzed by MeOH-HCl in 200 hrs. α-Me mannofuranoside, Me₂CO and CuSO₄ give the 2,3,5,6-diacetone derivative, b_{0.04} 125°, m. 24°, [α]_{D21} 68° (MeOH, c 2.8); it is quantitatively hydrolyzed in 400 hrs. with 1 volume 0.04 N HCl in 3 vols. MeOH. α-Me mannoside and Me₂CO containing 5% MeOH and 1% HCl give a mixture of the diacetone derivs. of α-Me pyranoside and α-Me mannofuranoside. The sepn. of α- and β-Me galactopyranosides may be conveniently effected by acetylating the crude mixture obtained by the action of MeOH-HCl on galactose, the solid Ac derivative being mainly the α-form; this yields a monoacetone, b_{0.02} 145-50° m. 101-2°, [α]_{D20} 162° (H₂O, c 0.5); it is hydrolyzed by 0.01 N HCl in less than 6 hrs. β-Me fructopyranoside with Me₂CO containing 1% HCl gives β-fructose diacetone, while with CuSO₄ there results the α-isomer, the glucosidic residue being lost in both cases. The α-isomer also results from Et fructofuranoside by shaking with Me₂CO-CuSO₄ for 6 months.

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L1      23 S RECRYSTALIZATION
          E RECRYSTALLIZATION+ALL/CT
L2      955920 S (RECRYSTALLIZATION OR "CRYSTALLIZATION") OR "SEPARATION"
L3      6194 S ?GALACTOPYRANOSIDE
          E ACETONE+ALL/CT
L4      259283 S (ACETONE OR "CHEMICAL COMPOUNDS") OR "ORGANIC COMPOUNDS"
L5      9 S L2 AND L3 AND L4

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